

PHENIX WEEKLY PLANNING



April 24, 2014
Don Lynch

- Run 14 Continues
- No Access this week
- Next access planned for next week 4/30
 - DC West wire repair? planning needed
 - MPC-Ex FEM replacement
 - Other Work
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required

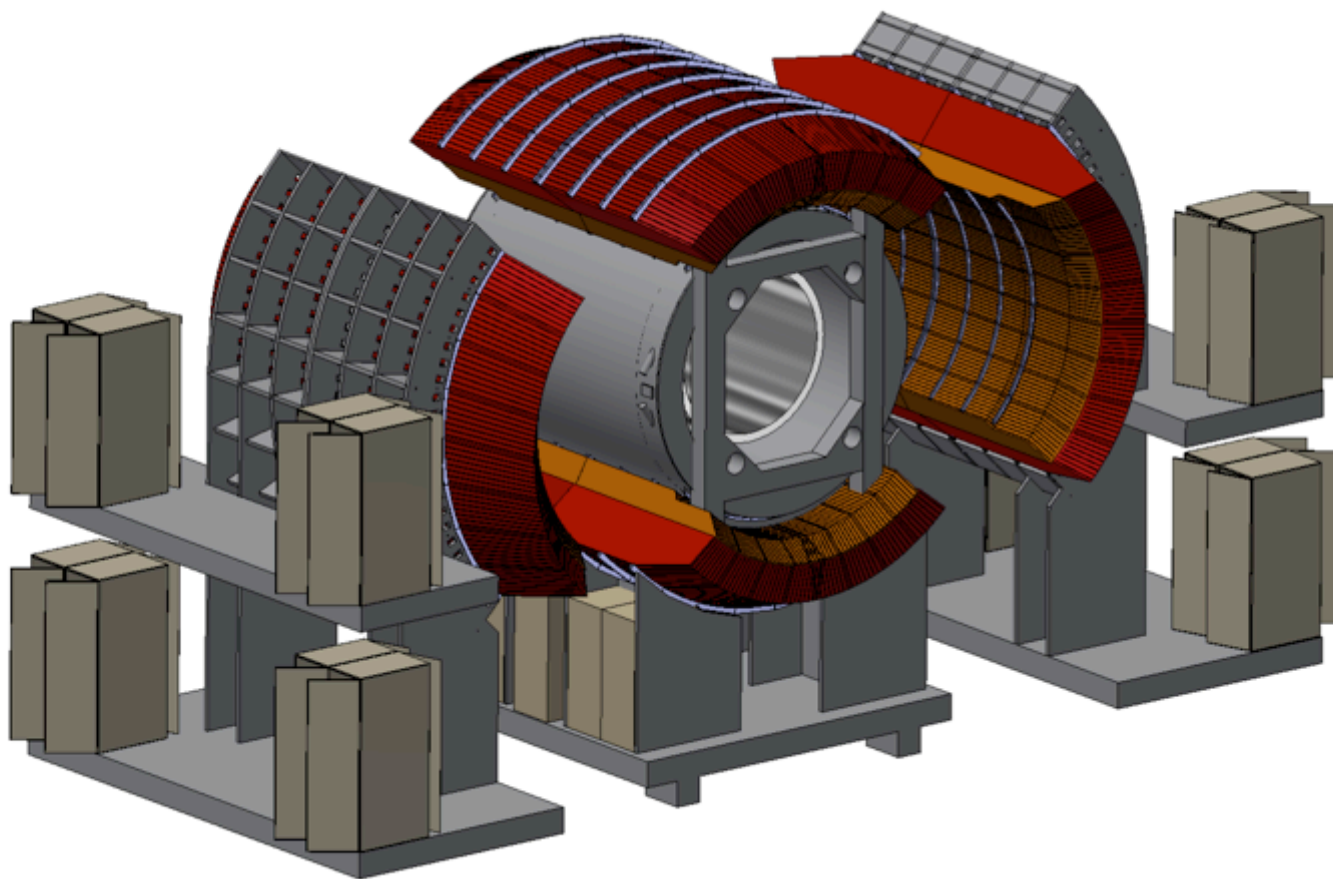
4/24/2014



Next Week

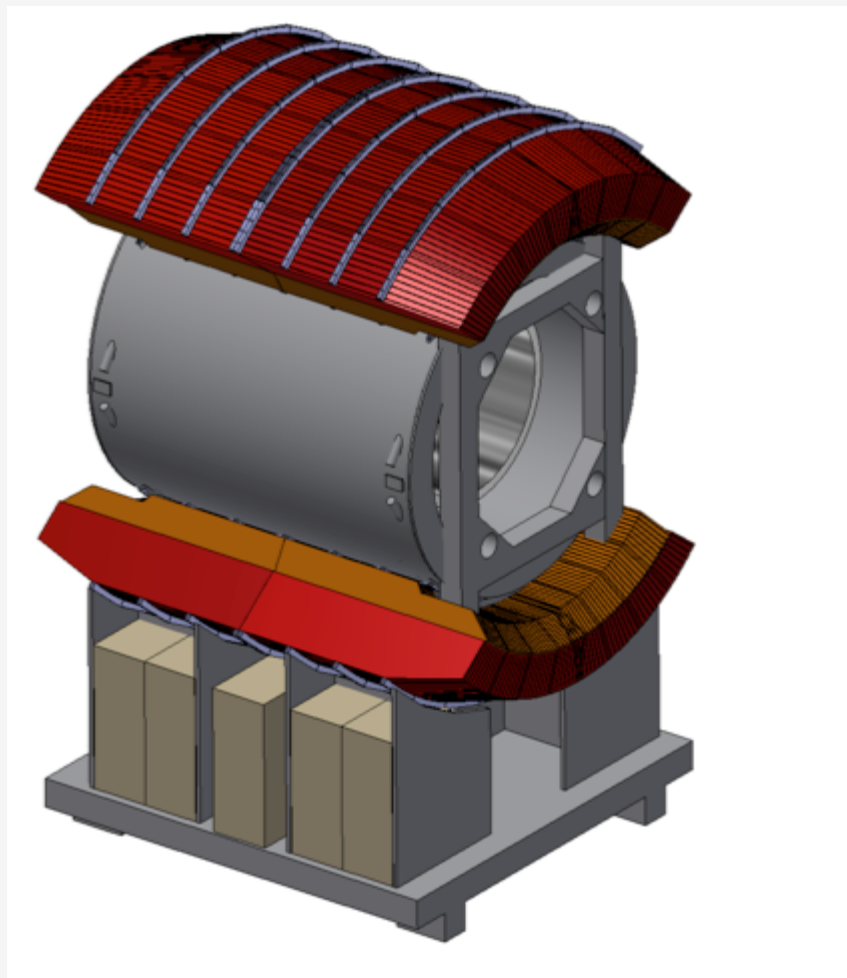
- Run 14 Continues
- No access next week, next access 4/30:
 - MPC-Ex tweaking (access to FEMs required)
 - Other requests?
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required

sPHENIX “Outie” Concept



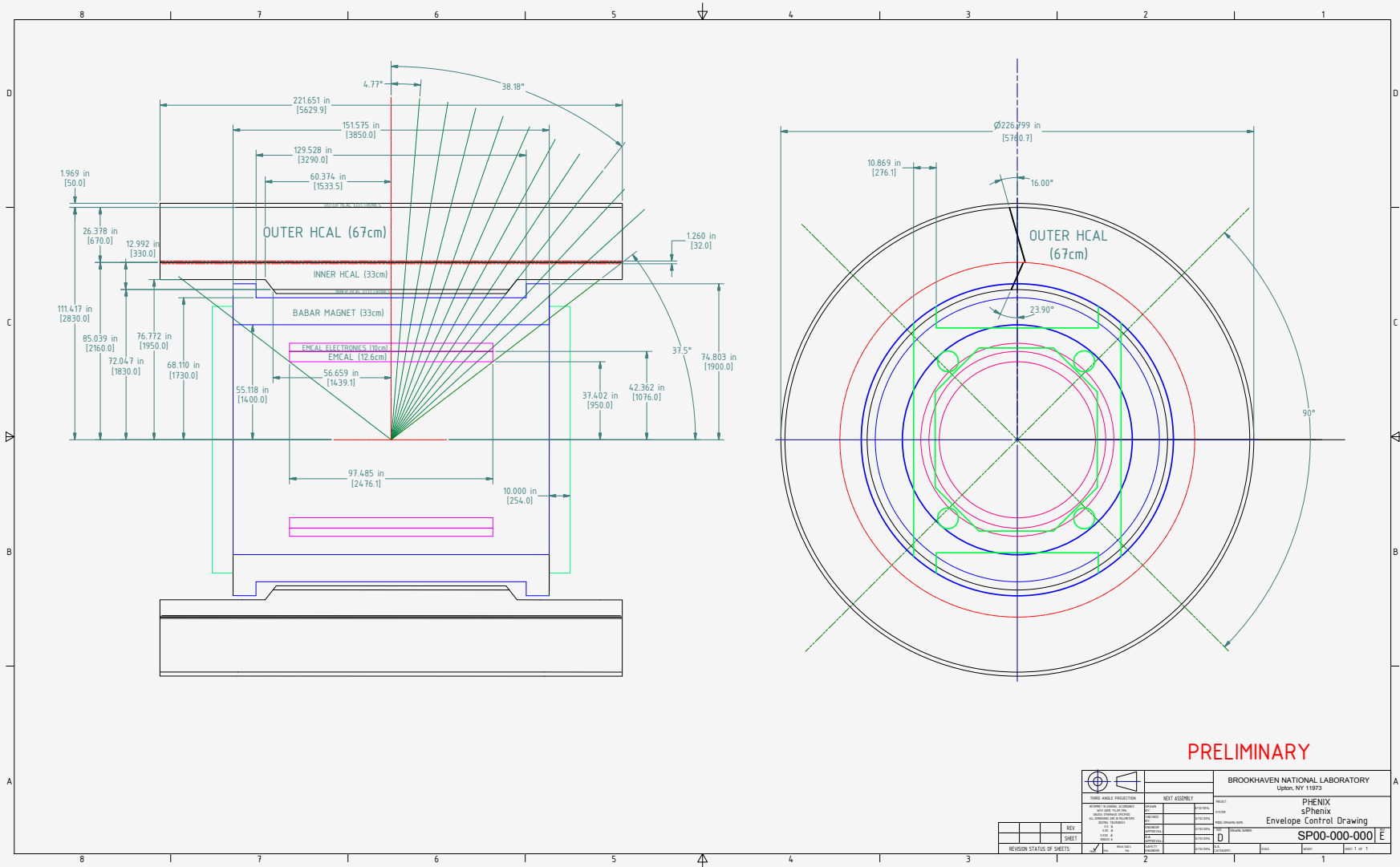
This is the design we will continue to pursue until if and when a final decision directs us to the "innie" option

HCal Central Pedestal



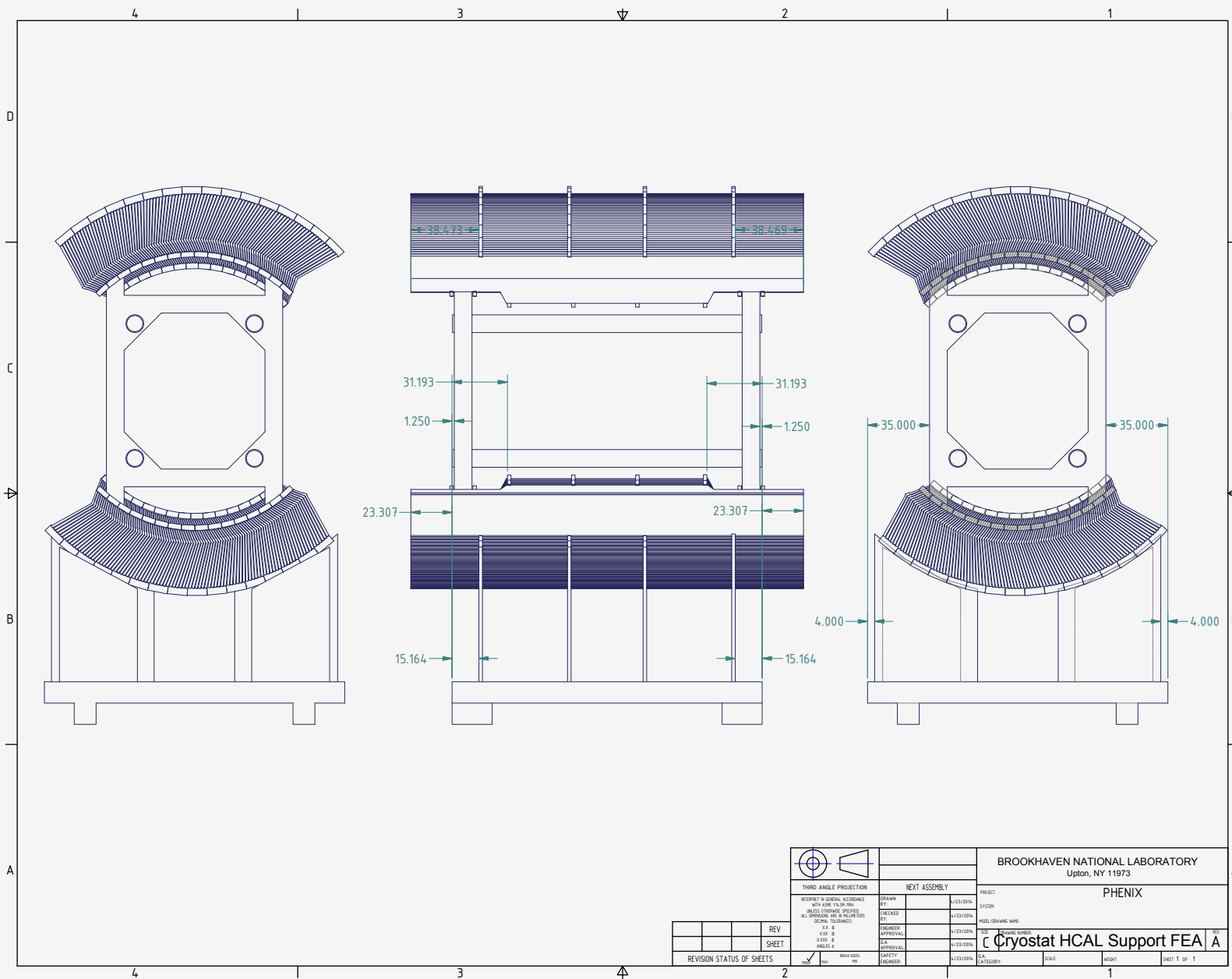
V1

4/24/2014



sPHENIX Major Subsystem Envelope Drawing, rev E

April 24, 2014



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sPHENIX Mechanical Design

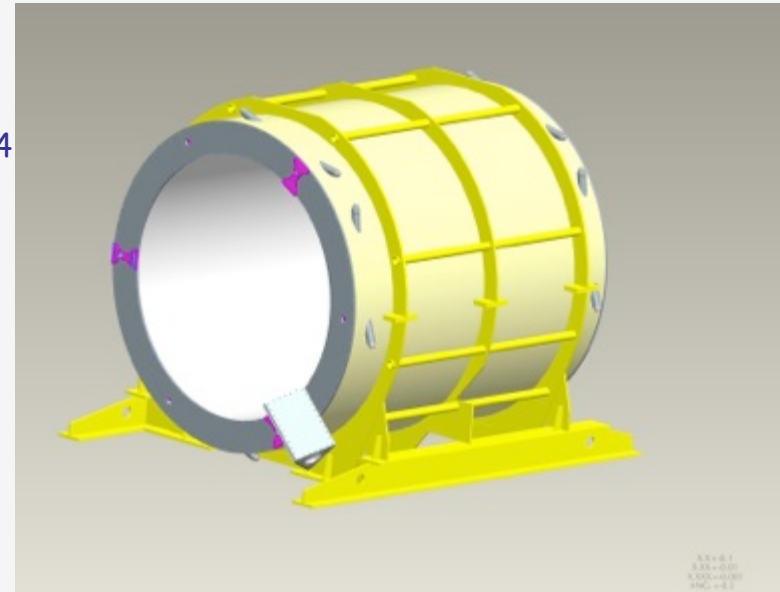
sPHENIX Engineering:

Major Subsystems/Subtopics:

- Magnet (BABAR) (Magnet Div) start 2/1/14 - 12/31/2018
- Hadronic Calorimeter (HCAL) (PHENIX) start 2/1/14 - 12/31/2020
- EM Calorimeter EMCal (PHENIX) start 2/1/14 - 12/31/2020
- VTX (RIKEN) start 2/1/14 - 12/31/2020
- DIRC (?) start ? - 12/31/2020
- VTX additional layers (RIKEN) start ? - 12/31/2020
- Carriage Support structure (PHENIX) start 2/1/14 - 12/31/2020
- Readout Electronics (PHENIX) start 2/1/14 - 12/31/2020
- Infrastructure (PHENIX ++)
- Electrical Power Services (PHENIX) start ? - 12/31/17
 - Instrumentation Support start ? - 12/31/2020
 - (Signal trays & Racks) (PHENIX)
 - Cryo Services (CAD) start 2/1/14 - 8/1/18
 - Cooling water (CAD) start ? - 12/31/2017
 - Safety Systems (PHENIX) start ? - 12/31/2020
 - Work Platforms and Access/Egress start ? - 12/31/2017
 - Structures (CAD)
 - HVAC (CAD) start ? - 12/31/2017
 - PHENIX Decommissioning start ? - 6/30/2017
 - (CAD, PHENIX)
- System Integration (PHENIX) start 2/1/14 - 12/31/2020
- Testing (PHENIX) start 2/1/14 - 12/31/2020
- Installation (PHENIX, CAD) start 2/1/14 - 12/31/2020
- Commissioning (PHENIX) start 2/1/14 - 12/31/2020

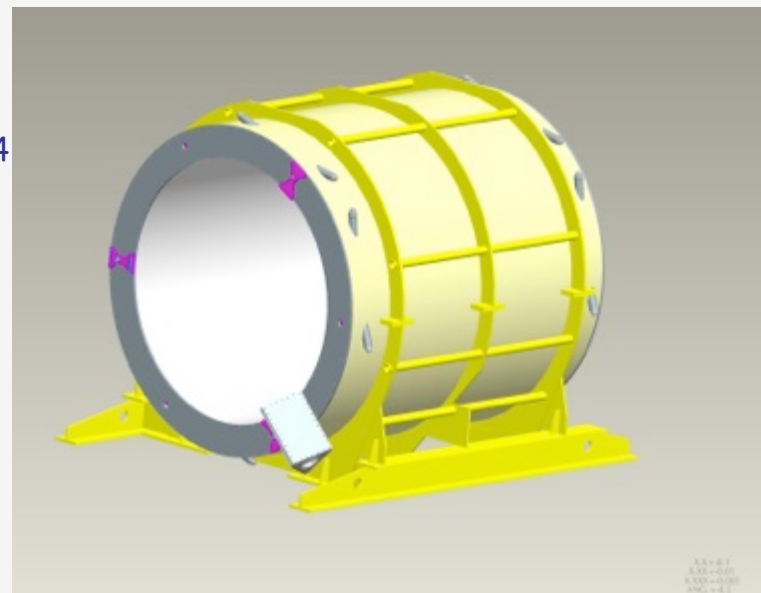
Magnet (BABAR) (Magnet Div)

- | | |
|---|---------|
| • Acquire rights | Done |
| • Evaluate Transport | 5/1/14 |
| • Design Transport fixtures | |
| • Fabricate Transport Fixtures | 5/1/14 |
| • Evaluate BNL test facility requirements | 6/1/14 |
| • Prepare test facility | 8/1/14 |
| • Install Transport fixtures | |
| • Transport to BNL | 9/1/14 |
| • Install in test facility | 10/1/14 |
| • Design tests/test equipment | 10/1/14 |
| • Fabricate/procure test equipment | 1/1/15 |
| • Run tests | 6/1/15 |
| • Design Magnet modifications | 12/1/14 |
| • Fabricate magnet modifications | 6/1/15 |
| • Install magnet modifications | 8/1/15 |
| • Evaluate final installation | 9/1/15 |
| • Design installation support equipment | |
| • Fabricate/procure support equipment | |
| • Transport to IR | |
| • Install | |
| • Test | |
| • Commission | |



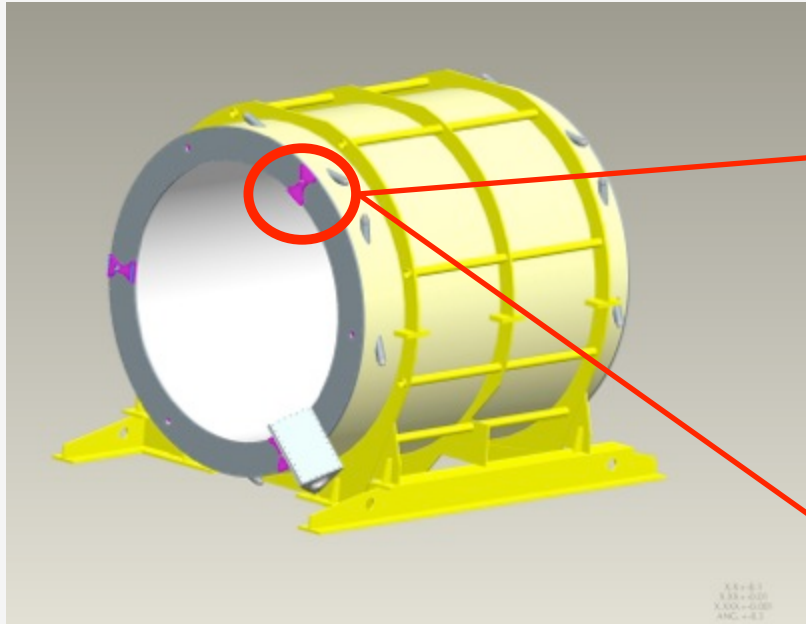
Magnet (BABAR) (Magnet Div)

- Acquire rights Done
- Evaluate Transport 5/1/14
- Design Transport fixtures
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- Prepare test facility 8/1/14
- Install Transport fixtures
- Transport to BNL 9/1/14
- Install in test facility 10/1/14
- Design tests/test equipment 10/1/14
- Fabricate/procure test equipment 1/1/15
- Run tests 6/1/15
- Design Magnet modifications 12/1/14
- Fabricate magnet modifications 6/1/15
- Install magnet modifications 8/1/15
- Evaluate final installation 9/1/15
- Design installation support equipment 12/31/2016
- Fabricate/procure support equipment 7/1/2018
- Transport to IR 7/1/2018
- Install 10/31/2019
- Test 11/31/2019
- Commission 12/31/2019

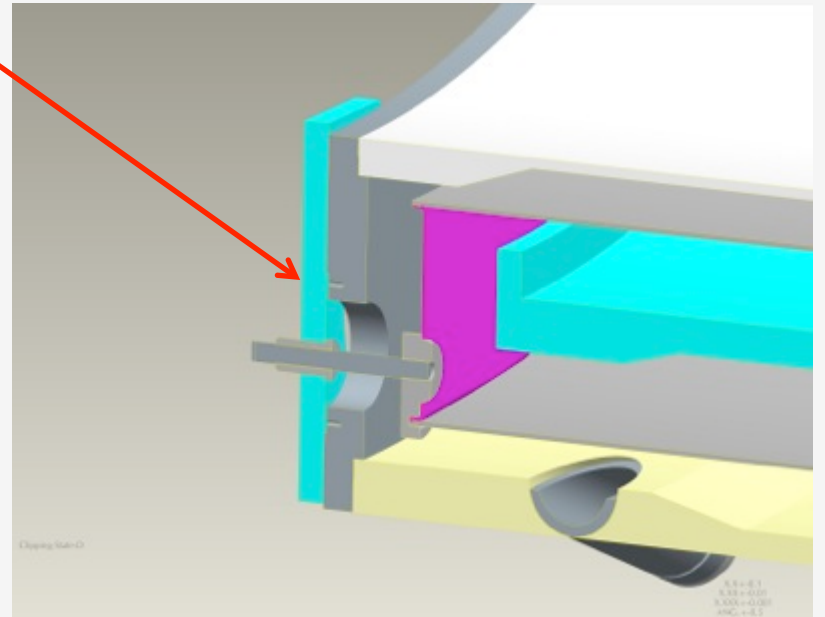
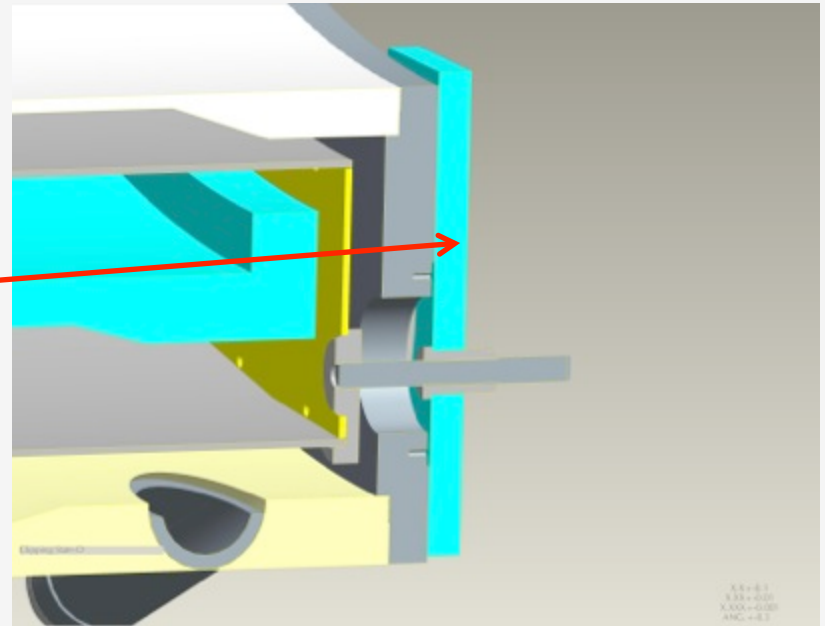


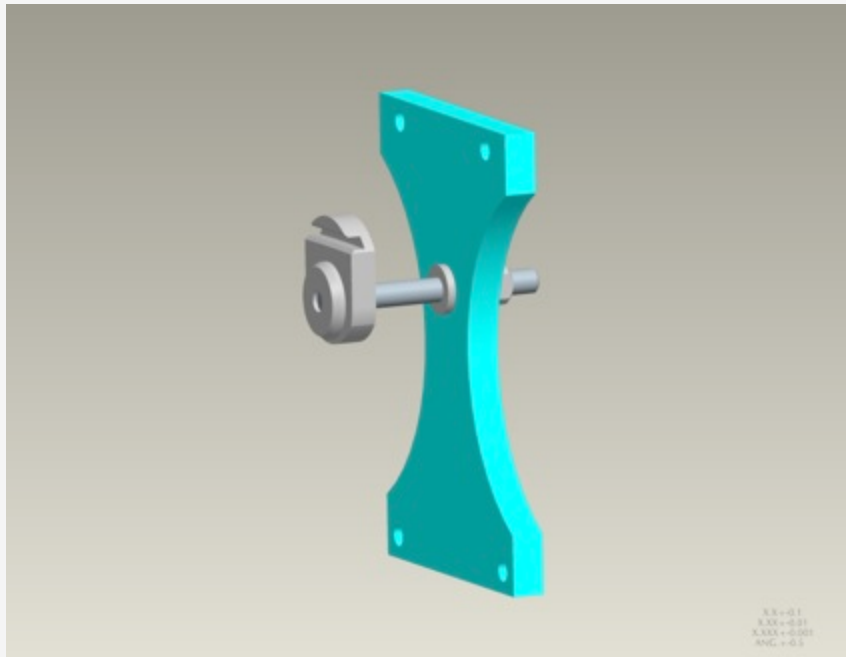
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sPHENIX Mechanical
Design



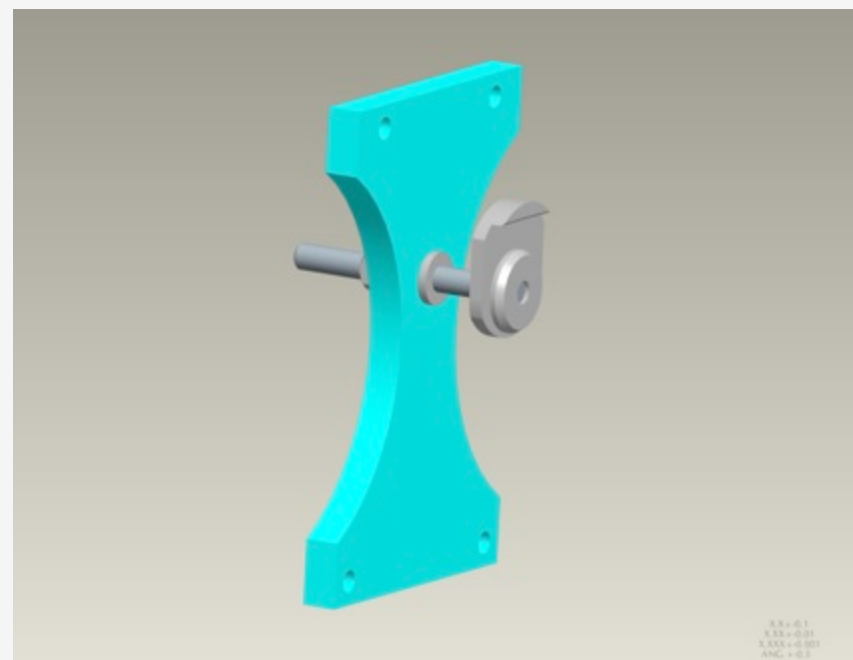
BABAR Magnet Shipping Fixtures





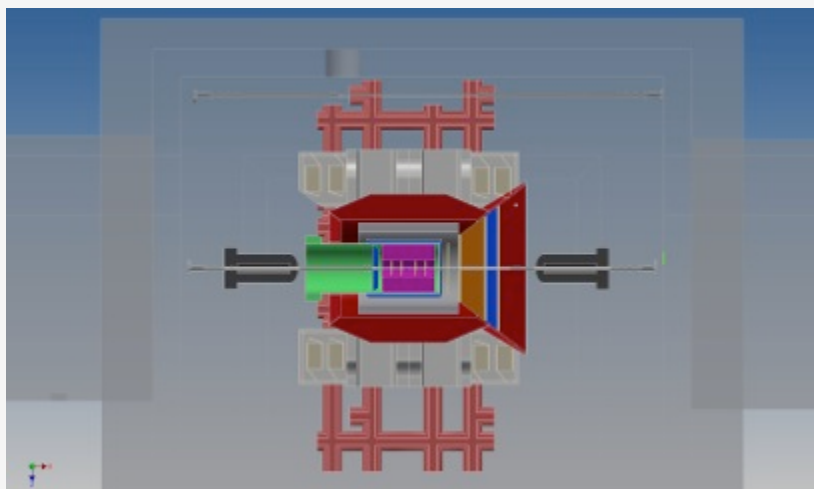
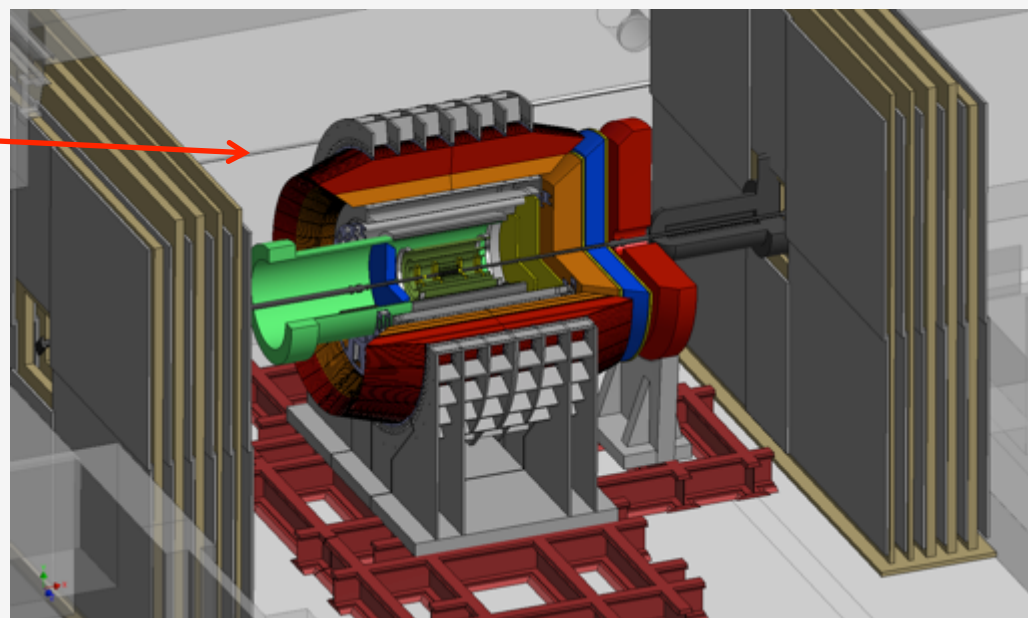
BABAR Magnet Shipping Fixtures:

3 of each required to immobilize
the cold mass heat shield

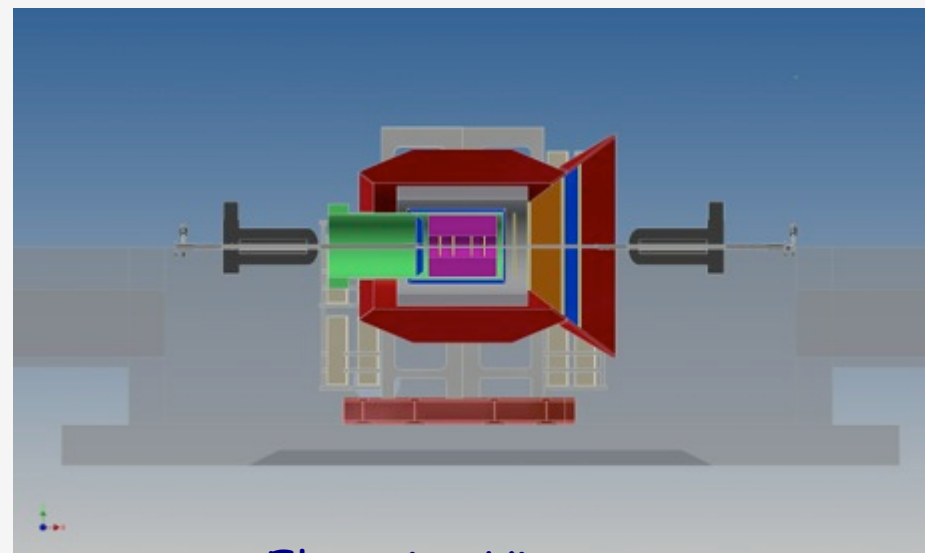


2ft high x 1 ft
wide clearance
needed for e-ring
components

ePHENIX



Plan View



Elevation View

4/24/2014

2014 planned Technical Support & 2014 Shutdown

TECHNICAL SUPPORT 2014

| | |
|---|--------------------|
| Support for run 14 | 2/3-6/30/2014 |
| Procure & Fabricate parts for MPC-Ex North and South | 1/1/2014-6/30/2014 |
| Assemble & test MPC-Ex South, ready for installation | 3/1-7/1/2014 |
| End of Run Party | 7/11/14? |
| Assemble & test MPC-Ex North, ready for installation | 7/1-9/25/2014 |
| Start of Shutdown Tasks (purge flammable gas, disassemble and stow shield wall, remove collars, move EC to AH, Move MMS south, etc.) | 7/14 - 7/25/2014 |
| Remove FVTX/VTX East to PHYSICS?, repair and reinstall | 7/14 - 9/15/2014 |
| Remove MMS east vertical lampshade | 7/28-7/30/2014 |
| Troubleshoot intermittent water leak in MMS | 7/30- 8/8/2014 |
| Other Maint. In MMS | TBD |
| Reinstall MMS east vertical lampshade | TBD |
| Summer Sunday prep AH, tours and restore AH | 7/30-8/15/2014 |
| Install scaffolding in Sta 1 South | 7/28/2014 |
| Remove MPC-Ex prototype, Install new MPC-Ex South | 7/28-8/22/2014 |
| Maint. & Repairs for MPC South, BBC South, RPC1 South, MuTr sta 1 South, as necessary | 7/28-8/22/2014 |
| Remove scaffolding from sta 1 south, Move CM South | 8/25/2014 |
| Install scaffolding in Sta 1 North | 8/26-8/29/2014 |
| Prep MPC-Ex North installation area | 9/1-9/26/2014 |
| Install new MPC-Ex North | 9/29-10/17/2014 |
| Remove Sta 1 North scaffolds, Move CM North | 10/20-10/24/2014 |
| Other detector support | TBD |
| Infrastructure Maintenance and Improvement | TBD |
| Decommissioning of obsolete PHENIX detector equipment | TBD |
| sPHENIX Support | on-going |
| End of Shutdown Tasks (Move MS north, roll in EC , install collars, remove 10 ton cart, plates and manlifts, build shield wall, etc.) | 10/27-11/26/2014 |
| Pink/White/Blue Sheets | 1/17/2014 |
| End of Shutdown Party | ??? |
| Start Flammable gas flow | ??? |
| Close shield wall, install radiation interlocks and prepare for run 14 | 12/31/2014 |
| Start run 15 | 1/2/2015 |

Safety and Security

From Ray Karol:

1. Reminder: do not prop open doors especially Access Controls doors without permission of RSC Chair, A. Etkin, R, Karol or Ed Lessard.
2. Reminder: Do not move rad postings or ropes, only HP can do this.
3. Based on a requirement change in the National Fire Protection Association's Standard for Electrical Safety in the Workplace - *NFPA 70E*, the Laboratory Electrical Safety Committee (LESC) has recently rendered a decision that ear protection (specifically, ear canal inserts) is required when performing electrical work at BNL on equipment with a Hazard/Risk Categorization of 0 or greater.

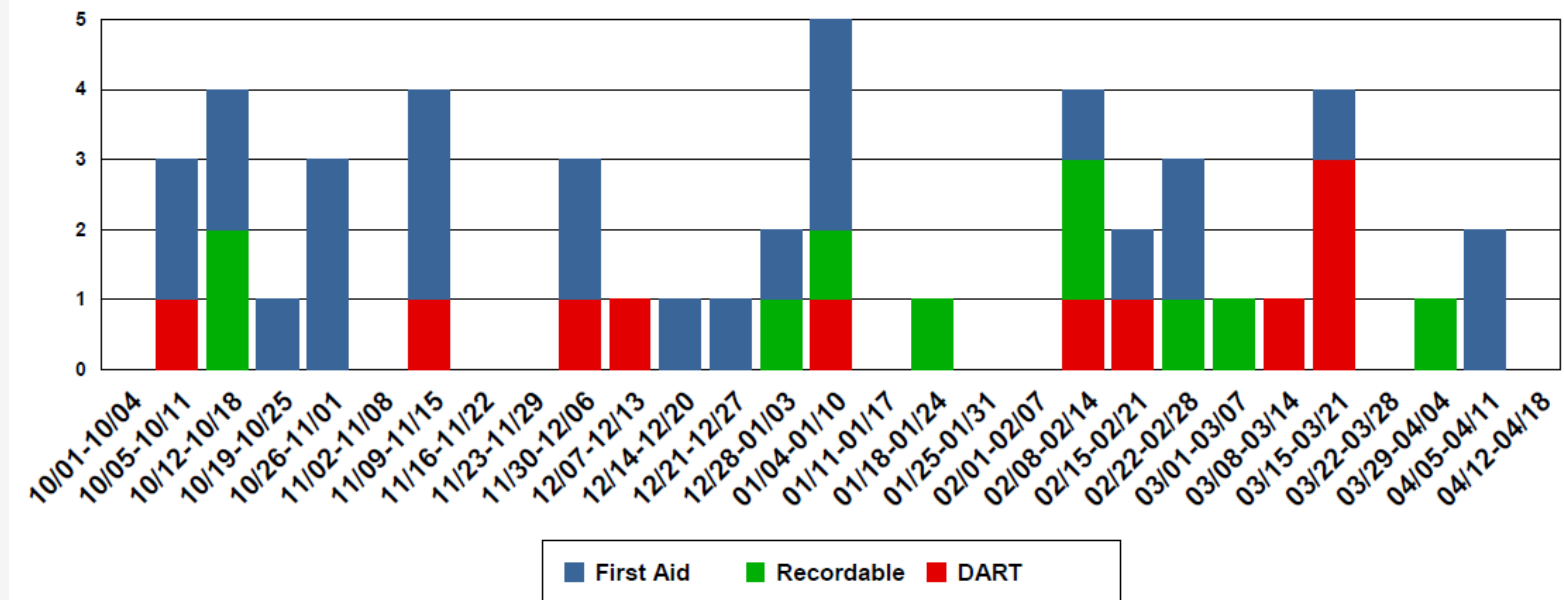
Any ear canal inserts that do not have bands or cords available through the EPRO system will meet the requirement of the Standard.

Safety and Health Services Division will be working with the LESC and the Training Office to make the appropriate changes to the Subject Area and impacted training. Additional guidance is expected in the near future.

Please ensure that from this point forward you wear ear canal inserts when operating circuit breakers or switches, or are performing electrical energized work on equipment identified as having a Hazard/Risk Category of 0 or greater.

Applies to all staff who have taken *Electrical Safety 1* and *Electrical Circuit Breaker and Switch Operation Safety* training

Injuries Per Week (FY)
As of 4/18/2014



Injury Status:

FY14 YTD: DART – 11, TRC – 21, First Aid – 26

FY13: DART – 16, TRC – 38, First Aid – 53

FY12: DART – 19, TRC – 36, First Aid – 69

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx>

Recent Injuries

| | |
|--|------|
| | None |
|--|------|

4/24/2014



Recent Events

| | | |
|---------|----------------|--|
| 4/12/14 | Non-Reportable | Fire Rescue responded to a reported spill of approximately 30 gallons of motor oil on the roadway and soil by Building 423. Upon initial review, the oil appears to be leaking from a fitting on a ¾-inch diesel oil line in the ceiling by the roll up door. The area was closed off to allow mitigation to proceed. (Event Link) |
| 4/11/14 | Non-Reportable | During scheduled water sampling by the RHIC ring storm water outfall, Environmental Sampling Team personnel discovered oil sheen on the water before and after the weir. Fire Rescue responded along with Environmental Protection Division (EPD) staff. Oil adsorbent pads and a boom were set in place downstream of the weir to mitigate further spread of the observed oil sheen. Investigation to identify the source of the spill is ongoing and involves the EPD and Collider-Accelerator Department (C-AD). It is estimated that the amount of oil released was less than 1 gallon. (Event Link) |
| 4/10/14 | Non-Reportable | Due to the failure of a corroded metal bushing on the feed pump to a 150-gallon tank of sodium hypochlorite solution, approximately 100 gallons of the solution leaked into the secondary containment tray beneath the tank. Chemical treatment vendor staff isolated the leak and repaired the feed pump, after which the product was returned to the storage tank. There were no injuries associated with the incident and hazardous materials were not released to the environment. (Event Link) |

4/24/2014



Where To Find PHENIX Engineering Info

Run 14 Continues!



NY Jets 2014 Season announced:

9/7 Raiders @ Jets
 9/14 Jets @ Packers
 9/22 Bears @ Jets (Monday night)
 9/28 Lions @ Jets
 10/5 Jets @ Chargers
 10/12 Broncos @ Jets
 10/16 Jets @ Patriots (Thursday night)
 10/26 Bills @ Jets
 11/2 Jets @ Chiefs
 11/9 Steelers @ Jets
 11/16 BYE
 11/23 Jets @ Bills
 12/1 Dolphins @ Jets (Monday night)
 12/7 Jets @ Vikings
 12/14 Jets @ Titans
 12/21 Patriots @ Jets
 12/28 Jets @ Dolphins

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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